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REMARKS

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Claims 1-3, 5-10 and 12-14 are now present in this application. Claims 1 and 8 are independent. Claims 1, 5, 8 and 12 have been amended. Reconsideration of this application, as amended, is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1-3, 5-10 and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burges in view of Tanaka. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Independent claim 1 has been amended to recite, among other features, an audio mode determining part configured to determine an audio kind of a listening audio by pattern-matching a feature of the listening audio with the classified features and to automatically switch a current listening audio mode to a listening audio mode with respect to the determined audio kind. Similarly, independent claim 8 has been amended to recite, among other features, pattern-matching a feature of a listening audio with the classified features if the listening audio is inputted and outputting a result of the pattern matching, determining an audio kind of the listening audio based on the result of the pattern-matching and automatically switching a current listening audio mode to a listening audio mode with respect to the determined audio kind. Further, independent claims 1 and 8 recite, among other features, classifying the extracted features according to preset audio kinds.

The Office Action states that Burges et al. teaches classifying the extracted features according to preset audio kind. See pages 3 and 4 of the Office Action (citing Fig. 2A and col. 13, lines 1-8 of Burges et al.). Burges et al. teaches that, once the DDA (Distortion Discriminant Analysis) training module 220 receives both distorted and undistorted copies of the training input signal 200, it applies DDA to the data to derive multiple layers of OPCA projections, which are supplied to a feature extraction module 230 (see Fig. 2A and col. 12, lines 49-55 of Burges et al.).

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Further, Burges et al. teaches that these extracted or "learned" features are then provided to an exemplary feature database 240 for subsequent use in any of a number of classification, retrieval, and identification tasks involving a signal input 250 (see Fig. 2B and col. 13, lines 1-8 of Burges et al.). However, although Burges et al. teaches using a DDA of a set of training signals to define parameters of a signal feature extractor, Burges et al. in nowhere teaches the preset audio kinds. Further, Tanaka et al. fails to overcome these deficiencies of Burges et al. Therefore, the cited references do not teach or suggest classifying the extracted features according to preset audio kinds, as recited in independent claims 1 and 8.

In addition, the Office Action states that Tanaka et al. discloses detecting an audio mode and setting a television accordingly. See pages 3 and 4 of the Office Action (citing Fig. 4 of Tanaka et al.). Tanaka et al. discloses an audio mode detector 203 in Fig. 4 of Tanaka et al. Tanaka et al. teaches that an audio data delivered from the 1394 digital interface is judged by mode detector 203 whether the audio data has lock mode or unlock mode (see col. 10, lines 4-6 of Tanaka et al.). Tanaka et al. further teaches that if it is unlock mode, the rate conversion is applied regardless of the sampling frequency of audio data to be synchronized with the sampling frequency of video, and if it is lock mode, the sampling frequency of audio data has been synchronized with the sampling frequency of video and thus rate conversion is not applied (see col. 10, lines 7-14 of Tanaka et al.). Therefore, although Tanaka et al. teaches an audio mode detector, the audio mode detector only detects whether the audio data has lock mode or unlock mode, indicating whether the rate conversion needs to be applied depending on the synchronization of the sampling frequency of the audio data with that of the video data. However, Tanaka et al. in nowhere discloses detecting the listening audio mode, and also fails to disclose automatically switching a current listening audio mode to a listening audio mode with respect to the determined audio kind. In addition, Burges et al. fails to overcome the deficiencies of Tanaka et al. Therefore, the cited references do not teach or suggest determining an audio kind of a listening audio by pattern-matching a feature of the listening audio with the classified features and automatically switching a current listening audio mode to a listening audio mode with respect to the determined audio kind, as recited amended independent claim 1 and similarly recited in amended independent claim 8.

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In addition, the Office Action further states that switching an audio mode according to an analysis done on an input audio signal is well known in the art (see page 2 of the Office Action). Applicants respectfully request the Examiner to provide specific references if the features of the claims are well known in the art.

Accordingly, amended independent claims 1 and 8, and each of the claims depending therefrom are allowable.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

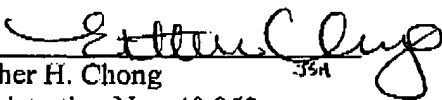
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Jun S. Ha., Registration No. 58,508, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: **MAY 29 2009**

Respectfully submitted,

By 
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